

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 12-28 remain in this application and, as amended herein, are submitted for the Examiner's reconsideration.

Claims 12 and 22 were amended solely to clarify the definition of the claimed register, and claim 18 was amended solely to clarify the definition of the first reader.

In the Office Action, the Examiner rejected claims 12, 18, 22 and 26-28 under 35 U.S.C. §102(e) as being anticipated by Potega (U.S. Patent No. 6,459,175 B1). It is submitted, however, the claims are patentably distinguishable over Potega.

The Potega patent describes a power supply that is electrically connected to a supplied device through a universal connector that may also be electrically connected to a battery. The power supply determines the voltage requirements of the supplied device *without any direct dependency on the supplied device for such information* either by detecting information from the battery, when present, or by monitoring the relationship between the power supply output voltage and the current-load created by the supplied device as power is applied. When the supplied device is turned on, the power supply increases the voltage delivered to the supplied device until the device is stabilized and assumes that the stabilized voltage is the minimum operational voltage of the supplied device. The power supply then accesses a look-up table, which contains output voltage profiles of various device types, to determine the type of device being supplied using the assumed minimum operational voltage. The power supply then repeatedly increases its output voltage by a predetermined value based on the profile contained in the look-up table and then detects the corresponding increase in the current load of the supplied device until either the voltage delivered to the supplied device reaches a maximum value

defined in the look-up table or until there are no further increases in the current-load of the supplied device. The absence of increases in the current-load of the supplied device indicates that either the supplied device has reached its maximum voltage and is temporarily shut off or that power is being diverted to charge the battery. (See Figs. 1-10; col. 11, lines 57-62; col. 13, lines 10-29 and 51-59; col. 14, lines 24-29; col. 15, lines 12-32; col. 15, line 59 - col. 17, line 46; col. 17, line 62 - col. 18, line 64; and col. 19, lines 45-67). The patent does not suggest that the power supply output or the supplied device receives a driving current *based on a current consumption value output by the supplied device*.

The Examiner contends that Potega teaches "a register for storing a power/current consumption value". (See col. 71, line 61 - col. 72, line 6). The patent, however, merely describes a prototype in which the supplied device was polled for information on its power configuration but does not suggest that this information was used to determine the voltage delivered to the supplied device.

Potega therefore does not suggest:

an interface configured for electrical connection to the main unit for outputting the current consumption value from said register for delivery to the main unit and for receiving a driving current based on the current consumption value from the main unit when the current consumption value does not exceed a maximum driving current for the main unit

as set out in claim 12.

It follows that Potega does not suggest the combination called for in claim 12 and does not anticipate the claim.

Claim 26 depends from claim 12 and further defines and limits the invention set out in the independent claim. It

follows that claim 26 likewise defines a combination that is patentably distinguishable over the reference.

Independent claim 18 is directed to a unit configured for connection to an electronic device and calls for:

said supply unit for supplying a driving current based on the current consumption value to the electronic device when the current consumption value does not exceed a maximum driving current.

Therefore, claim 18 is distinguishable over Potega at least for the same reasons set out above regarding claim 12.

Claim 27 depends from claim 18 and is patentably distinguishable over Potega at least for the same reasons.

Independent claim 22 is directed to a system that includes an electronic device similar to that defined in claim 12 and a main unit similar to that defined in claim 18. Claim 22 is therefore distinguishable over the Potega patent at least for the same reasons.

Claim 28 depends from claim 22 and is therefore distinguishable over Potega at least for the same reasons.

Accordingly, the withdrawal of the rejection under 35 U.S.C. § 102 is respectfully requested.

The Examiner also rejected claims 13-17, 19-21 and 23-25 as being unpatentable over Yamagata (U.S. Patent No. 6,609,072) in view of Yeom (U.S. Patent No. 5,911,080) and Potega. It is submitted that the claims are patentably distinguishable over the references.

Claims 13-17 depend from claim 12, claims 19-21 depend from claim 18 and claims 23-25 depend from claim 22. Therefore, each of claims 13-17, 19-21 and 23-25 are distinguishable over Potega at least for the same reasons.

The Yamagata and Yeom patents do not remedy the deficiencies of Potega. The Yamagata patent is concerned with controlling the input and output of an information terminal

device when the remaining battery "quantity" of the information terminal device is less than or equal to a predetermined value. Fig. 1 shows a stand-alone terminal device with a battery and a judging means that determines whether sufficient battery quantity remains for operating a communication means that is *also located in the terminal device*. If there is insufficient battery quantity, the judging means prohibits operation of the communication means. Figs. 2, 3 and 5 show a stand-alone information terminal having an operating system which checks the remaining battery quantity when a process using input/output hardware is to be executed. A CPU obtains the energy consumption value of the input/output hardware and estimates the time remaining for continuous battery operation and the time needed to complete the process. The CPU permits processing when the time of continuous battery operation is greater than or equal to the time needed to complete the process, and the CPU attempts to modify the process to consume less power when the remaining operational time of the battery is less than that needed to complete the process. (See col. 1, lines 30-47; col. 2, line 66 to col. 3, line 31; and col. 9, line 40 to col. 10, line 64).

Thus, Yamagata describes that the power is delivered *only within* the portable information terminal. Yamagata does not suggest an interface of an electronic device for *receiving* a driving current based on the current consumption value *from a main unit* and does not suggest a supply unit for *supplying* a driving current based on the current consumption value *to an electronic device*.

The Yeom patent is concerned with reducing the power consumption by an identification (ID) card reader while reading an ID card by activating an auxiliary power supply of the card reader instead of the main power supply. When a user inserts an ID card into a reader, the auxiliary power supply enables the

reading of a user ID from the ID card so that the read user ID data may be compared with stored user ID data. If the read user ID data corresponds to the stored user ID data, the main power supply is activated. Alternatively, if the read user ID data does not correspond to the stored ID data, the process may be repeatedly carried out until power to the ID card reader is turned off after a predetermined time interval. (See Figs. 3 and 5; and col. 4, lines 4-51). Yeom therefore describes a card that *stores only the user ID* and does not suggest receiving a driving current *based on a current consumption value* from a main unit or suggest supplying a driving current *based on a current consumption value* to an electronic device.

Therefore, neither Yamagata, Yeom nor Potega suggests the interface defined in claim 12, from which claims 13-17 depend, or suggests the supply unit defined in claims 18 and 22, from which claims 19-21 and 23-25 respectively depend.

Moreover, the Potega and Yamagata references are not combinable. Potega describes that the power supply automatically reconfigures its output voltage and determines the appropriate voltage needs of the supplied device *without any pre-programmed prior knowledge or information about the supplied device and without any direct dependency on the supplied device for information*. (See col. 11, lines 56-62 and col. 15, lines 12-32). Thus, Potega *teaches away* from using the energy consumption value of the supplied device to determine the voltage provided by the power supply to the supplied device. A person of ordinary skill in the relevant art would not look to combine the teachings of Potega with those of Yamagata which describes permitting the operation of input/output hardware or attempting to modify the power consumption of the input/output hardware *based on the energy consumption value of the input/output hardware*.

It follows that neither Yamagata, Yeom, nor Potega, whether taken alone or in combination, suggests the electronic device defined in claims 13-17, the unit defined in claims 19-21 or the system defined in claims 23-25. Therefore, claim 13-17, 19-21 and 23-25 are patentably distinct and unobvious over the references.

Accordingly, the withdrawal of the rejection under 35 U.S.C. § 103 is respectfully requested.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

By 

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